

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) The method for automatically measuring, monitoring, and switching signals for audio satellite broadcasts of program content in AC-3 standard format to be transmitted as AES-3 signal bit streams, said audio satellite broadcasts containing meta data, variable dependent upon said program content comprises:

determining a predetermined count at which each packet in the AES-3 bit stream is to arrive, disabling a response to receipt of the packet to avoid outputting the data in the packet if it is received before said predetermined count has lapsed from receiving the start of a packet, in an AES-3 signal bit stream generated by an original source of said program content for delivery to program content receivers by a direct broadcast satellite system, said direct broadcast satellite system having an uplink system, said uplink system operable to multiplex, modulate, encode and add conditional access information to said AES-3 bit stream;

detecting if disruption occurs while packet is being received, by said uplink system;

accepting the packet of AC-3 information for enabling output after a predetermined time period plus the predetermined count from which the last packet started, if a disruption has been detected, and

determining whether said last packet comes within 10 milliseconds after an AC-3 packet was predicted to have arrived, and accepting said last packet as a trigger to provide a valid output in response to said detection.

2. (original) The invention as defined in claim 1 wherein said count is a time count.

3. (original) The invention as defined in claim 1 wherein said count is a word count.

4. (canceled)

5. (previously amended) The invention as defined in claim 1 and further comprising wherein if another packet comes within a time period greater than 10 milliseconds but less than the predetermined number of milliseconds between packets, and preventing output by refusing to accept the packet, received in said interval between N and X for enabling output.

6. (currently amended) A method for controlling the status of channel status bits in multiple data streams, said multiple data streams of satellite broadcast communications operable to provide video, uncompressed stereo digital data in a first language and uncompressed stereo digital data in a least a second language wherein said video, uncompressed stereo digital data in a first language and uncompressed stereo digital data in at least a second language is program content comprises:

establishing agreement between the channel status bit buried in an AC-3 packet and the channel status bit buried within the MPEG-2 PES header structure, and

regenerating the channel status bits of the AES-3 stream continuing in the IRD for output of AC-3 to feed an external AC-3 decoder so that the channel status bits comply with the bits in the AC-3 data stream which also agrees with the serial data stream between the IRD and the decoder.

7. (original) The invention as defined in claim 6 wherein said establishing agreement comprises parsing the AC-3 bit stream, determining the channel bit status, setting the channel bit status in MPEG-2 PES header, and generating MPEG-2 PES header in an encoder.

8. (original) The invention as defined in claim 7 wherein said establishing agreement comprises setting the AC-3 audio stream channel status bit to be on, and recalculating the CRC bit in response to changing the channel status bit in the AC-3 audio stream.

9. (original) The invention as defined in claim 8 wherein said setting comprises an operator manually setting said channel status bit.

10. (original) The invention as defined in claim 8 which said setting comprises automatically setting said channel status bit.

11. (original) The invention as defined in claim 6 wherein said channel status bit is a copyright status bit.

12. (original) The invention as defined in claim 8 wherein said establishing agreement comprises setting the AC-3 audio stream channel bit to be off, and recalculating the CRC bit in response to changing the copyright bit status in the AC-3 audio stream.

13. (original) The invention as defined in claim 12 wherein said setting comprises an operator manually setting said copyright bit.

14. (original) The invention as defined in claim 12 which said setting comprises automatically setting said copyright bit.

15. (currently amended) An uplink processor for transmitting AC-3 audio streams together with video transmissions, the uplink processor incorporated within a direct satellite broadcast system comprising:

an encoder with switch logic input automatically sensing ~~sensor~~ audio signal formats and redirecting signals to an encoder adapted to process said ~~second~~ sensed audio signal formats, said encoder operable to output data in the form of digital transport packets; and

a multiplexer, wherein said multiplexer combines said output data with conditional access data, and program guide data.

16. (original) The invention as defined in claim 15 wherein said sensing comprises the sensing of compression in a serial digital interface router.

17. (previously amended) An apparatus (Fig. 6) for automatically checking, cataloging and reporting errors in an AC-3 bit stream signal broadcast in a direct satellite broadcast system comprising:

a monitor including a processor with a clock,
a computer interface for converting AES signal to computer readable language
and,

time code labeler for labeling each packet with a time stamp with said processor controlling said computer interface to read data into a buffer, sending a message to the processor's operating system in response to a detector detecting errors in said data and sending a message in response to discrepancies with said labeling.

18. (original) The invention as defined in claim 17 wherein said detector comprises a state processor finding AC-3 packets, locking into each packet, and detecting any discontinuity in the packets or loss of packets from a signal.

19. (original) The invention as defined in claim 17 wherein said detector is operative checking timing of on-air faults simultaneously with on-air broadcasting of said AC-3 bit stream signal.

20. (original) The invention as defined in claim 19 wherein said detector is operative while preparing a tape for broadcast.

21. (previously amended) A device for playing AC-3 signal out in sync with a video signal, said device incorporated within a direct satellite broadcast system providing program content to a terrestrial receiver comprising

a monitor including a processor with a time clock, wherein a sound card has an input for a) receiving a house reference AES clock and b) locking audio output to the

frequency of video production of a house master generator by said audio card receiving AES clock input to simultaneously start audio and AC-3 data stream.

22. (original) The invention as defined in claim 21 and further comprising a time code reader for automatic start of playback of said video and audio signals in sync.

23. (original) The invention as defined in claim 21 wherein an editor's contact closure is an input to said processor to start playback.

24. (previously amended) The invention as defined in claim 21 wherein said monitor determines a size of the packet from a start of the packet, and generates an IEC 958 header based on said determined size.

25. (original) The invention as defined in claim 24 wherein said device places the header and AC-3 packet in buffer, supplements the unfilled spaces in the buffer with a series of bits, and
wherein said device outputs data from the AES-3 card as PCM audio signal.

26. (original) The invention as described in claim 21 wherein the AC-3 data is stored as a data file.

27. (original) The invention as defined in claim 26 wherein the data file is stored on a CD-Rom.
